☑003/009

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. – 4. (Canceled)

5. (Previously Presented) An optical switching system configured by multistage-connecting a plurality of optical switching devices, wherein the optical switching device comprises a plurality of optical reflection monitors with an optical reflection monitoring function, the optical reflection monitors detecting reflected light on a path transmitting an optical signal input to the optical switching device, and locating positions of reflection on the path, and wherein the optical reflection monitors comprise an optical isolator that passes only the optical signal and blocks the reflected light; an optical branching circuit that separates the reflected light of the optical signal; and an optical detector that monitors the reflected light.

6. (Previously Presented) An optical switching system configured by multistage-connecting a plurality of optical switching devices, wherein the optical switching device comprises a plurality of optical reflection monitors with an optical reflection monitoring function, the optical reflection monitors detecting reflected light on a path transmitting an optical signal input to the optical switching device, and locating positions of reflection on the path, and wherein the optical reflection monitors comprise an optical circulator that allows the passage of the optical signal and circulates or blocks the reflected light of the optical signal, and an optical detector that monitors the reflected light.

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7 - 12.   (Canceled).

13. (Currently Amended) An optical switching method enabling detection of reflected light, the method comprising the steps of;

making a setting for switching an optical switch and storing optical interconnection relationships;

making a selection of a circuit board on which optical switching devices are mounted according to a command from an operation control unit and storing an optical reflection alarm information; and

locating positions of reflection according to the optical interconnection relationships and the optical reflection alarm information being stored. The optical switching method according to claim 11,

wherein the step of storing the optical reflection alarm information includes steps of;

transferring the optical reflection alarm information from the optical switching device to the operation control unit after transmitting an optical reflection alarm acquisition request to the optical switching device mounted on the selected circuit board by the a CPU; and

updating the contents of the optical reflection alarm information being stored based on the optical reflection alarm information by the CPU.

14. (Currently Amended) An optical switching method enabling detection of reflected light, the method comprising the steps of:

making a setting for switching an optical switch and storing optical interconnection relationships;

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making a selection of a circuit board on which optical switching devices are mounted according to a command from an operation control unit and storing an optical reflection alarm information; and

locating positions of reflection according to the optical interconnection relationships and the optical reflection alarm information being stored. ~~The optical switching method according to claim 11,~~

wherein the step of locating the positions of reflection includes steps of:

detecting an alarm position according to the optical reflection alarm information that has been stored, when optical reflection alarm information is present;

searching the optical interconnection relationships being stored;

selecting a suspected abnormal optical interconnection path; and

after determining a rearmost connection among interconnected points at which reflected light occurs, notifying the operation control unit of the rearmost connection.

15. (Previously Presented) A method of collecting optical reflection alarm information in an optical switching system including a system control unit and a plurality of optical switch boards each of which is provided with a board control unit and a plurality of optical reflection monitors coupled to I/O ports of an optical switching unit, the method comprising the steps of:

performing a settings for optical path switching in each of said optical switching units and storing information indicative of optical interconnection relationships between the I/O ports into a switching information register by each of

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said switching board control units in accordance with instructions from said system control unit;

selecting one of said optical reflection monitors one after another by each of said board control units;

determining status of an optical signal path passing through an I/O port coupled to said selected optical reflection monitor by comparing a monitored signal received from the selected optical reflection monitor with a predetermined threshold by said board control unit;

setting status information indicative of the status of said optical signal path into an optical reflection monitoring register by said board control unit; and

collecting said status information from each of optical switch boards by said system control unit.

16. (Canceled)

17. (Previously Presented) The method according to claim 15,

wherein the status of said optical signal path is determined by comparing an A/D converted monitored signal value with said threshold by said board control unit, and

said status information includes a "1" bit to indicate an abnormal condition when the monitored signal value was judged smaller than the threshold and a "0" bit to indicate a normal condition when the monitored signal value was judged not smaller than the threshold.

18 – 21.   (Canceled)

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